User Interface Programming – Project Research Workbook

This workbook will help you focus your research for your project.
Once you have answered these questions, use this information in your GUI Design Document.

Briefly describe the application or game you will design and create the user interface for.

The graphical user interface you design may be just a piece or sub-section of a larger application.

This is your initial idea to focus your research. The application described in your design document, or your final build, may end up being different from this description.

Keep in mind that you may want the project you develop in this subject to integrate with the project you create for the subject *Cross-Platform Development*.

The game I will design the user interface for will be a sound based first person puzzle game. I want the player to move about a maze that has no visible walls, the only cue they have is when they get close to a wall, the audio gets louder. If they proceed through this "sound wall" then they die or lose health. The player must navigate their way through the maze to the exit without dying. I want to implement a timer, health system and checkpoints. I want to design the user interface for the main menu, pause menu and in-game UI.

I'm not entirely sure what I want to do for the in-game HUD yet so I will mostly focus on the main menu and pause menu for this project.

Identify any industry best practices, standards, codes of practice, or similar requirements or frameworks that may be applicable to the graphical user interface you are designing.

You may want to consider developer guidelines for app or game stores, video game rating regulations, and industry best practice reflected in online blogs, guides, or conference recordings.

User focused design - I want the layout and menus to be easily traversable for the user. I personally find it more difficult to become engaged by a game if the UI is painful to deal with. Familiarising myself with common UI patterns will be a priority while researching for this project.

Establish design patterns and consistency – develop a design pattern that I like and use that as the base for all UI in the game. Plan to keep the same structure, colours, and font throughout the whole game.

Testing and feedback – Make sure I get others to test my UI and see if there are any bugs or issues with the design. Simultaneously obtain feedback on things that need improving or changing to make it better.

Describe the functionality of your GUI.

Use diagrams or mock-ups to detail the front-end interface (what the user sees).

Describe the events or processing that occurs in response to actions the user performs using the interface (i.e., the back-end processing).

The MAIN MENU screen will contain different button options. E.g., start game, load game, settings, quit etc. I will offset these to one side and then display a game image beside the title and menu. Start game will load into game, load game will load previous checkpoint in game, settings will bring up an alternative screen that has adjustable settings inside it, quit game will exit application.

I also want a PAUSE MENU screen in game with will have different options accessible from buttons. E.g., resume, controls, settings, quit etc

Lastly, I want IN-GAME UI which displays a health/life bar, timer, and audio visualiser

What prototyping tools are available to you? Which one(s) will you use?

Figma, Unity, MS paint, Adobe Experience Design. Figma seems popular and free, will probably try set something up in there. Could even just do it in unity.

What resources are required for the development of the user interface?
Include both software, and assets.

- Unity
- Figma
- Visual Studio 22
- YouTube for tutorials
- Google for ideas

List and describe the information that is contained within a design document used to describe the design of a graphical user interface.

In how much detail is each piece of information typically described?

What diagrams may be included?

- Purpose of the UI and a brief explanation of what I will design
- Hardware and software requirements for the project
- Features of the GUI that will be implemented and the details for them
- UI wireframe mock-ups probably will include some diagrams of examples from other games or mock-ups for this design in this section.